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10/685,215

10/14/2003

William A. Welsh

67008-156PUS1;5691

4100

26096 7590 04/27/2012  
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BIRMINGHAM, MI 48009

EXAMINER

JOHNSON, VICKY A

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/685,215  
Filing Date: October 14, 2003  
Appellant(s): WELSH, WILLIAM A.

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Timothy J. Murphy  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed January 30, 2012 appealing from the Office action mailed June 22, 2011.

## **(2) Related Appeals and Interferences**

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Appeal 2009-002774 Decided July 30, 2009

## **(3) Status of Claims**

The following is a list of claims that are rejected and pending in the application:

11-36 are pending

11-21, 23-24, and 28 are withdrawn

22, 25-27, and 29-36 are rejected.

## **(4) Status of Amendments After Final**

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

## **(5) Summary of Claimed Subject Matter**

The examiner has no comment on the summary of claimed subject matter contained in the brief.

## **(6) Grounds of Rejection to be Reviewed on Appeal**

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the

subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

**(7) Claims Appendix**

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

**(8) Evidence Relied Upon**

61-164109	UEDA	7-1986
6,813,973	PERRY	11-2004

**(9) Response to Arguments**

The appellant argues that claim 22 is non-obvious over the rejection of Ueda (JP 61-164109) in view of Perry (US 6,813,973). The argument centers around the argument that the previous board decision was incorrect. The previous board decision upheld the rejection of claims 22 and 25-27 claims in view of the Ueda reference that the masses (21a, 22b) are independently rotatable masses. The claims have since been amended to recite that the masses are "radially offset from the axis of rotation," which is shown and rendered obvious in view of the Perry reference.

The Ueda reference shows that the masses (21a, 22b) are independently rotatable masses. Figure 6 of the Ueda reference show that the masses rotate in opposite directions independently, and further the reference states on page 12 lines 3-6 that 21a rotates clockwise and 21b rotates counter-clockwise. The Board affirmed this decision in the previous appeal 2009-002774 Decided July 30, 2009.

The appellant argues that the masses 21a and 21b do not rotate in opposite directions as shown in Figure 6 of the Ueda reference. Instead, the appellant argues that the masses “wobble,” in opposite directions. On page 12 of the Ueda translation it states, “mass member 21a provided at one end rotates CW, and the other mass member 21b rotates CCW.”

It is further argued that the Board erred in its decision because the Ueda reference does not disclose “a drive system to independently spin each of said multiple of masses.” The Appellant argues that the masses of the Ueda reference “is merely a reaction to an earlier excitement.” On page 12 of the Ueda reference translation and in Figure 6, shows the masses members 21a, 21b rotating in opposite directions.

The Appellant also argues that the masses 21a, 21b do not spin. The application as originally filed did not include and define the limitation “spin.” The limitation “spin” was broadly interpreted as “to revolve or rotate rapidly, as the earth or a top.” The appellant argues that prior decision of the Board that “Ueda’s mass members rotate, or orbit in opposite directions around the Z-axis,” should be reversed. The Appellant states that the Board erred because “the masses cannot “orbit” their axis in opposite directions. If they did, the elastic supports’ 22a, 22b would break.” It is further argued that the elastic members 22a, 22b urge the masses back toward a relaxed position rendering an independent orbit impossible. Figure 6 of the Ueda reference fails to support the Appellant’s argument. Figure 6 shows each of the masses rotating in one direction, either CW or CCW.

The Perry reference is further argued against because it would change Ueda's principle of operation, and such a modification is improper. The Perry reference teaches the use of a multiple of masses (38, 52) radially offset from the axis of rotation (35) and it would have been obvious to one having ordinary skill in the art to modify the device to Ueda to include radially offset rotatable masses as taught by Perry in order to increase adjustability of the balance.

The Appellant also argues that Ueda is not concerned with reducing vibrations in its system. Claim 22 recites "a control system in communication with said drive system to control the angular velocity of each of said multiple of masses to reduce vibrations generated by the rotating system." As the appellant admits, the limitation "to reduce vibrations generated by the rotating system," is a functional limitation. MPEP 2173.05(g) states "A functional limitation is an attempt to define something by what it does, rather than by what it is (e.g., as evidenced by its specific structure or specific ingredients)." The control system of the Ueda reference is capable of reducing vibrations.

The dependent claims 30-31 and 34 are also argued against as being non-obvious in view of the prior art. The Appellant argues that the Ueda reference does not teach any system that is configured to spin its masses. The Ueda reference discloses a multiple of masses (21a, 21b) disposed about an axis of rotation, a control system and a drive system to independently spin each of the masses and control the angular velocity.

Art Unit: 3656

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Vicky A. Johnson

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